

CLAIMS

What is claimed is:

1. A filter underdrain for supporting a filter media between at least two dividers forming at least one cell, said filter underdrain comprising:
at least one porous plate for supporting said filter media for filtering a fluid, said porous plate spanning across at least one of said dividers; and
a plurality of support members beneath said porous plate, said support members containing at least one port for draining said fluid after said fluid passes through said porous plate.
2. The filter underdrain of Claim 1, wherein said filter media comprises one or more selected from the group consisting of sand, anthracite coal, and activated carbon.
3. The filter underdrain of Claim 1, wherein said porous plate comprises one or more materials selected from the group consisting of plastics and ceramics.
4. The filter underdrain of Claim 1, further comprising a plurality of porous plates, wherein said porous plates are bound together by a lap joint.
5. The filter underdrain of Claim 1, wherein said porous plate is approximately four feet by eight feet and there are six of said cells measuring about eight inches in width.

6. The filter underdrain of Claim 1, wherein said porous plate is approximately four feet by eight feet and there are four of said cells each measuring about twelve inches in width.
7. The filter underdrain of Claim 1, wherein each of said dividers is secured to a channel member that is secured to said porous plate.
8. The filter underdrain of Claim 1, wherein said support member has an I-shaped cross-section.
9. The filter underdrain of Claim 1, further comprising an end section between at least two of said support members, said end section containing at least one pocket for holding said porous plate.
10. The filter underdrain of Claim 9, wherein said pocket is formed from one or more selected from the group consisting of c-channels, I-beams, and angles.
11. A filtration system for filtering a fluid comprising:
 - a plurality of porous plates, said porous plates being bound together to form a continuous surface;
 - a plurality of partitions mounted on top of said porous plates to form a plurality of compartments to receive said fluid; and
 - an underdrain beneath said porous plates for draining away said fluid after said fluid passes through said compartments and said porous plates.

12. The filtration system of Claim 11, further comprising a filter media contained in at least one of said compartments for filtering a fluid, wherein said filter media comprises one or more selected from the group consisting of sand, anthracite coal, and activated carbon.
13. The filtration system of Claim 11, wherein said porous plate comprises one or more materials selected from the group consisting of plastics and ceramics.
14. The filtration system of Claim 11, further comprising a plurality of porous plates, wherein said porous plates are bound together by a lap joint.
15. The filter underdrain of Claim 11, wherein each of said dividers is secured to a channel member that is secured to said porous plate.
16. The filtration system of Claim 11, wherein said underdrain comprises:
a plurality of support members for supporting said porous plates;
an end section at an end of at least two of said support members; and
an end port at an end opposite said end section, wherein said said at least two support members, said end section, and said end port form an underdrain for at least one of said compartments.
17. The filtration system of Claim 16, wherein said support member has an I-shaped cross-section.

18. The filtration system of Claim 16, wherein said end section and/or said port further contains at least one pocket for holding said porous plate.
19. The filtration system of Claim 18, wherein said pocket is formed from one or more selected from the group consisting of c-channels, I-beams, and angles.
20. A method for preparing a low profile underdrain comprising the steps of:
arranging a plurality of partitions to form a plurality of compartments for holding a filtering media for filtering a fluid; and
securing said plurality of partitions atop at least one porous plate to prevent said filtering media from passing therethrough.